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This Amendment is in response to the final Office Action mailed on September 7, 2006. Claim 1 is amended editorially and is supported, for example, in Figures 1-4. Claims 5-7 are cancelled without prejudice or disclaimer. No new matter is added. Claims 1-4 are pending.

Claim Objections:

Claims 1-4 are objected to for failing to clarify the relationships of various features in claim 1 and for failing to define which direction is the longitudinal direction and/or at what level the recited centerline is positioned. Claim 1 as amended clarifies the relationship between the die pad, the pair of electrode terminals, and the substrate. Claim 1 as amended also clarifies the direction that is the longitudinal direction and at what level the recited centerline is positioned. Withdrawal of this objection is requested.

§102(b) Rejections:

Claims 1 and 2 are rejected as being anticipated by Sano (US Patent No. 6,486,543). This rejection is traversed.

Claim 1 is directed to a semiconductor device that requires, among other features, an insulating substrate that has an obverse surface, a reverse surface opposite to the obverse surface, and a plurality of side surfaces extending between the obverse surface and the reverse surface. Claim 1 also requires a die pad made of a metal film that is formed on the obverse surface of the substrate and a pair of electrode terminals made of a metal film that extend from the obverse surface of the substrate onto the reverse surface via selected ones of the side surfaces. Furthermore, a molded portion made of a synthetic resin covers the obverse surface of the substrate without covering the side surfaces and the reverse surface.

Sano does not disclose or suggest these features. Sano is directed to a semiconductor device with a substrate (5), a resin package (4), an inner terminal (10) with a tongue (10b) and outer terminals (11a, b and c; 12a, b and c; 21a, b, and c; and 22a, b and c). The present Office Action interprets the substrate (5) and/or the resin package (4) as the insulating substrate of claim 1, the tongue (10b) as the die pad of claim

1, the outer terminals (11a, b and 21a, b) as the pair of electrodes of claim 1 and the resin package (4) also as the molded portion of claim 1. However, neither the substrate (5) nor the resin package (4) can be the insulating substrate of claim 1. The tongue (10b), interpreted in the present Office Action as the die pad of claim 1, is located within the resin package (4) and not on an obverse surface of the substrate (5) as would be required by claim 1 (see Figures 1, 2 and 12). Figure 12 of Sano does show a terminal pad (50) on a surface of the substrate (5). However, even if the terminal pad (50) is interpreted as the die pad of claim 1, the outer terminals (11a, b and 21a, b), interpreted in the present Office Action as the pair of electrode terminals of claim 1, do not extend from an obverse surface of the substrate (5) or the resin package (4) onto a reverse surface via selected ones of the side surfaces. Specifically, the outer terminals (11a, b and 21a, b) extend only from side surfaces of the resin package (4) onto a reverse surface (see Figures 1, 2 and 12). Sano discloses only a terminal pad (50) on an obverse surface of the substrate (5) and only a convex lens (46) and a cavity (90) on an obverse surface of the resin package (4) (see Figures 1, 2 and 12).

Furthermore, nowhere does Sano disclose or suggest the molded portion of claim 1. No where does Sano suggest a molded portion made of a synthetic resin that covers only an obverse surface of the substrate (5). If the resin package (4) is interpreted as the insulating substrate of claim 1, then the resin package (4) cannot also be the molded portion because claim 1 requires that the molded portion cover the obverse surface of the substrate without covering the side surfaces and the reverse surface. For at least these reasons, claim 1 is not anticipated by or unpatentable over Sano. Claim 2 depends from claim 1 and should be allowable for at least the same reasons.

§103(a) Rejections:

Claims 3 and 4 are rejected as being unpatentable over Sano in view of Kwan (US Patent No. 6,872,661). This rejection is traversed. Claims 3 and 4 depend from claim 1 and should be allowed for at least the same reasons described above. Applicants do not concede the correctness of this rejection.

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Conclusion:

Applicants respectfully assert claims 1-6, 8-11 and 19 are now in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.

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PATENT TRADEMARK OFFICE

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Respectfully submitted,

HAMRE, SCHUMANN, MUELLER &
LARSON, P.C.
P.O. Box 2902-0902
Minneapolis, MN 55402-0902
(612) 455-3800

By: 

Douglas P. Mueller
Reg. No. 30,300
DPM/ahk